

Expr ss Mail No.: EL 862267589 US  
 Date of Deposit: October 8, 2003  
 Please type a plus sign (+) in this box ☐



PTO/SB (12-97)  
 Approved for use through 9/30/00. OMB 0651-0031  
 Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE  
 Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Modified Form 1449/PTO  <b>INFORMATION DISCLOSURE          STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	<b>Application Number</b>	10/617,912
	<b>Filing Date</b>	July 11, 2003
	<b>First Named Inventor</b>	Fokema
	<b>Group Art Unit</b>	Not yet assigned
	<b>Examiner Name</b>	Not yet assigned
	<b>Attorney Docket Number</b>	26048-013

U.S. PATENT DOCUMENTS							
Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
WG	A1	2,574,445	11/06/51	Porter, et al.	106		
WG	A2	2,618,586	11/18/52	Hendal	106		
WG	A3	3,063,936	11/13/62	Pearce, et al.	208	211	
WG	A4	4,202,865	05/13/80	Preston, Jr.	423	244	
WG	A5	4,246,244	01/20/81	Fox	423	225	
WG	A6	4,313,820	02/02/82	Farha, et al.	208	213	
WG	A7	4,725,415	02/16/88	Kidd	423	230	
WG	A8	4,977,123	12/11/90	Flytzani-Stephanopoulos	502	84	
WG	A9	5,124,140	06/23/92	Okada, et al.	423	650	
WG	A10	5,130,115	06/14/92	Fujisou, et al.	423	652	
WG	A11	5,157,201	10/20/92	Norris	585	820	
WG	A12	5,254,516	10/19/93	Gupta, et al.	502	84	
WG	A13	5,360,536	11/01/94	Nemeth, et al.	208	248	
WG	A14	5,401,391	03/28/95	Collins, et al.	208	208	
WG	A15	5,494,880	02/27/96	Siriwardane	502	400	
WG	A16	5,685,890	11/11/97	Okada, et al.	48	214	
WG	A17	5,686,196	11/11/97	Singh, et al.	429	17	
WG	A18	5,807,475	09/15/98	Kulparathipranja, et al.	208	208	
WG	A19	5,938,800	08/17/99	Verrill, et al.	48	127.9	
WG	A20	6,159,256	12/12/00	Bonville, Jr. et al.	48	61	
WG	A21	6,245,221	06/12/01	Baird, et al.	208	213	
WG	A22	6,274,533 B1	08/14/01	Khare	502	343	
WG	A23	6,299,994 B1	10/09/01	Towler, et al.	429	17	
WG	A24	6,338,794	01/15/02	Khare	208	247	
WG	A25	6,416,659	07/09/02	Groten, et al.	208	213	
WG	A26	6,454,935 B1	09/24/02	Lesieur, et al.	208	244	
WG	A27	6,558,533	05/08/03	Schmidt, et al.	208	244	
WG	A28	6,579,444 B2	06/17/03	Feimer, et al.	208	243	

## FOREIGN PATENT DOCUMENTS

Exam Initials	Cite No.	Foreign Patent Document Office Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes No

## OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
WB	C1	Brooks, et al., "Desulfurization Over Metal Zeolites". <i>Sep. Sci. Tech.</i> , 25: 1817-1828 (1990).
WG	C2	Gasper-Galvin, et al., "Zeolite-Supported Metal Oxide Sorbents for Hot-Gas Desulfurization", <i>Ind. Eng. Chem. Res.</i> , 37: 4157-4166 (1998).
WG	C3	Jothimurugesan, et al., "Regeneration of Zinc Titanate H <sub>2</sub> S Sorbents", <i>Ind. Eng. Chem. Res.</i> , 37: 1929-1933 (1998).
WG	C4	Li, et al., "Cu-Cr-O and Cu-Ce-O Regenerable Oxide Sorbents for Hot Gas Desulfurization", <i>Ind. Eng. Chem. Res.</i> , 36: 187-196 (1997).
WG	C5	Sasaoka, et al., "Modification of ZnO-TiO <sub>2</sub> High-Temperature Desulfurization Sorbent by ZrO <sub>2</sub> Addition", <i>Ind. Eng. Chem. Res.</i> , 38: 958-963 (1999).
WG	C6	Swisher, et al., "Review of Metals and Binary Oxides as Sorbents for Removing Sulfur from Coal-Derived Gases", <i>J. Mater. Eng. Perf.</i> , 1: 399-408 (1992).

\* a copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_\_\_\_, filed \_\_\_\_\_, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

Examiner Signature	<i>Walter D. Smith</i>	Date Considered	3-1-2006
-----------------------	------------------------	--------------------	----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.

Include copy of this form with next communication to applicant.

Express Mail No.: EV 475171305 US  
Date of Deposit: April 6, 2005



Page 1 of 1  
Attorney Docket No.: 26048-013

Please type a plus sign (+) in this box



PTO/SB (12-97)  
Approved for use through 9/30/00. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>Modified Form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)	<b>Application Number</b>	10/617,912
	<b>Filing Date</b>	July 11, 2003
	<b>First Named Inventor</b>	Fokema
	<b>Group Art Unit</b>	1764
	<b>Examiner Name</b>	Walter Dean Griffin
	<b>Attorney Docket Number</b>	26048-013

**U.S. PATENT DOCUMENTS**

Exam Initials	Cite No.	U.S. Patent Document No.	Issue Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
WG	*A29	4,179,361	12/18/79	Michlmayr	208	244	
WG	*A30	6,482,314 B1	11/19/02	Khare	208	244	

**U.S. PUBLISHED APPLICATION DOCUMENTS**

Exam Initials	Cite No.	U.S. Published Application No.	Published Date	Name of Patentee(s) or Applicant(s)	Class	Sub Class	Filing Date If Appropriate
WG	*A31	2001/0027163 A1	10/04/01	Khare	502	400	
WG	*A32	2003/0032555 A1	02/13/03	Dodwell	502	400	

**FOREIGN PATENT DOCUMENTS**

Exam Initials	Cite No.	Foreign Patent Document Office	Number	Name of Patentee(s) or Applicant(s)	Date of Publication	Translation Yes	No
WG	B1	WO	02/22763 A1	RESEARCH TRIANGLE INSTITUTE	03/21/02		
WG	B2	WO	03/020850 A2	THE REGENTS OF THE UNIV. OF MICHIGAN	03/13/03		

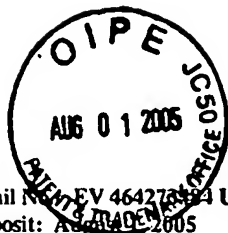
**OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS**

Exam Initials	Cite No.	Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.
WG	C7	International Search Report for PCT/US2004/021172, mailed February 22, 2005.
WG	C8	Written Opinion of the International Searching Authority, mailed February 22, 2005.

\* By the waiver of 37 CFR 1.98(a)(2)(I) copies of the U.S. Patents A29-A30 and of the U.S. Published Applications A31-A32 are not submitted.

<b>Examiner Signature</b>		<b>Date Considered</b>	3-1-2006
---------------------------	--	------------------------	----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Express Mail No. EV 464273394 US  
Date of Deposit: AUG 01 2005

Page 1 of 1  
Attorney Docket No.: 26048-013

Please type a plus sign (+) in this box



PTOSB (12-97)  
Approved for use through 9/30/00. OMB 0651-0031  
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>Modified Form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Application Number</b>		10/617,912	
				<b>Filing Date</b>		July 11, 2003	
				<b>First Named Inventor</b>		Fokema	
				<b>Group Art Unit</b>		1764	
				<b>Examiner Name</b>		Walter Dean Griffin	
				<b>Attorney Docket Number</b>		26048-013	
<b>U.S. PATENT DOCUMENTS</b>							
<b>Exam Initials</b>	<b>Cite No.</b>	<b>U.S. Patent Document No.</b>	<b>Issue Date</b>	<b>Name of Patentee(s) or Applicant(s)</b>	<b>Class</b>	<b>Sub Class</b>	<b>Filing Date If Appropriate</b>
<b>U.S. PUBLISHED APPLICATION DOCUMENTS</b>							
<b>Exam Initials</b>	<b>Cite No.</b>	<b>U.S. Published Application No.</b>	<b>Published Date</b>	<b>Name of Patentee(s) or Applicant(s)</b>	<b>Class</b>	<b>Sub Class</b>	<b>Filing Date If Appropriate</b>
<b>FOREIGN PATENT DOCUMENTS</b>							
<b>Exam Initials</b>	<b>Cite No.</b>	<b>Foreign Patent Document Office Number</b>	<b>Name of Patentee(s) or Applicant(s)</b>	<b>Date of Publication</b>	<b>Translation Yes No</b>		
<b>OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS</b>							
<b>Exam Initials</b>	<b>Cite No.</b>	<b>Name of Author, Title (when appropriate), Publication, Volume, Page(s), Date, Etc.</b>					
WC	C9	International Preliminary Report on Patentability for PCT/US2004/021172, mailed June 30, 2005.					

\*A copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No. \_\_\_\_\_, filed \_\_\_\_\_, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications).

<b>Examiner Signature</b>	<i>Walter D. Griffin</i>	<b>Date Considered</b>	3-1-2006
-------------------------------	--------------------------	----------------------------	----------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.